

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of inducing addition of medium spiny neurons in post-natal and adult brain comprising:

providing a nucleic acid construct encoding a brain-derived neurotrophic factor and a nucleic acid construct encoding a bone morphogenic protein inhibitor, wherein the nucleic acid constructs are in viral vectors

injecting the nucleic acid ~~construct~~ constructs into a subject's lateral ventricles ~~or to infect the ventricular wall zone~~ under conditions effective to express the neurotrophic factor and the bone morphogenic protein inhibitor and to induce addition of medium spiny neurons in any one or all of the caudate nucleus and the putamen of the subject.

2. (Canceled)

3. (Currently Amended) A method according to claim 2 1, wherein the viral vector is an adenoviral vector, a lentiviral vector, a retroviral vector, an adeno-associated viral vector, or a combination thereof.

4. (Currently Amended) A method according to claim 1, wherein the nucleic acid construct encoding the brain-derived neurotrophic factor further comprises a constitutive promoter for controlling expression of the brain-derived neurotrophic factor.

5. (Currently Amended) A method according to claim 1, wherein the nucleic acid construct encoding the brain-derived neurotrophic factor further comprises a cell-specific promoter for controlling expression of the brain-derived neurotrophic factor.

6. (Currently Amended) A method according to claim 1, wherein the nucleic acid construct encoding the brain-derived neurotrophic factor further comprises an inducible or conditional promoter for controlling expression of the brain-derived neurotrophic factor.

7-27. (Canceled)

28. (Currently Amended) A method of treating a neurodegenerative condition of the neostriatum Huntington's Disease comprising:

providing a nucleic acid construct encoding brain-derived neurotrophic factor and a nucleic acid construct encoding a bone morphogenic protein inhibitor, wherein the nucleic acid constructs are in viral vectors and

injecting the nucleic acid construct constructs into a subject's lateral ventricles ~~or to infect the ventricular zone wall~~ under conditions effective to induce addition of medium spiny neurons and to treat a neurodegenerative condition of the neostriatum Huntington's Disease.

29-33. (Canceled)

34. (Currently Amended) A method according to claim 33-28, wherein the viral vector is an adenoviral vector, a lentiviral vector, a retroviral vector, an adeno-associated viral vector, or a combination thereof.

35. (Currently Amended) A method according to claim 28, wherein the nucleic acid construct encoding the brain-derived neurotrophic factor further comprises a constitutive promoter for controlling expression of the brain-derived neurotrophic factor.

36. (Currently Amended) A method according to claim 28, wherein the nucleic acid construct encoding the brain-derived neurotrophic factor further comprises a cell specific promoter for controlling expression of the brain-derived neurotrophic factor.

37. (Currently Amended) A method according to claim 28, wherein the nucleic acid construct encoding the brain-derived neurotrophic factor further comprises an inducible or conditional promoter for controlling expression of the brain-derived neutrophic factor.

38-43. (Canceled)

44. (Currently Amended) A method of treating a neurodegenerative condition of the neostriatum Huntington's Disease comprising:
providing brain-derived neurotrophic factor and a bone morphogenic protein inhibitor and
introducing the brain-derived neurotrophic factor and the bone morphogenic protein inhibitor into any one or all of a subject's caudate nucleus and putamen under conditions effective to induce addition of medium spiny neurons and to treat a neurodegenerative condition of the neostriatum Huntington's Disease.

45-58. (Cancelled)

59. (New) The method of claim 1, wherein the bone morphogenic protein inhibitor is noggin.

60. (New) The method of claim 28, wherein the bone morphogenic protein inhibitor is noggin.

61. (New) The method of claim 58, wherein the bone morphogenic protein inhibitor is noggin.

62. (New) The method of claim 28, wherein Huntington's Disease is delayed.

63. (New) The method of claim 44, wherein Huntington's Disease is delayed.